

CLAIMS

I CLAIM:

1. A method of improving the solubility of perfluorinated polyethers in fluorinated solvents, comprising adding a solubilizer to the solvent, wherein the solubilizer is selected from alcohols and cyclic ethers.
2. The method of claim 1, wherein the weight ratio of solubilizer to fluorinated solvent is the azeotropic ratio.
3. The method of claim 1, wherein the solubilizer is an alcohol and is selected from lower alcohols and halogenated alcohols.
4. The method of claim 3, wherein the solubilizer is selected from methanol, ethanol, propanol, isopropanol, butanol, trifluoroethanol, pentafluoropropanol and heptafluorobutanol.
5. The method of claim 1, wherein the solubilizer is a cyclic ether selected from tetrahydrofuran, 2-methyl-tetrahydrofuran, tetrahydropyran, and dioxane.
6. The method of claim 1, wherein the solution is formed by first adding the solubilizer to the solvent, followed by the addition of the perfluorinated polyether.
7. The method of claim 1, wherein the solution is formed by first adding the perfluorinated polyether to the solvent, followed by the addition of the solubilizer.
8. The method of claim 1, wherein the solution is formed by simultaneously adding the solubilizer and the perfluorinated polyether to the solvent.
9. The method of claim 1, wherein the fluorinated solvent is selected from hydrochlorofluorocarbons, hydrofluoroethers, hydrofluorocarbons, hydrohalofluoroethers, and fluorinated amines and cyclic ethers.
10. A method of dissolving a perfluorinated polyether for use in hard disk drive applications, comprising:
 - (a) providing a fluorinated solvent; and
 - (b) adding a solubilizer and a perfluorinated polyether to the solvent;

- wherein the solubilizer is selected from alcohols and cyclic ethers.
11. The method of claim 10, wherein the weight ratio of solubilizer to fluorinated solvent is the azeotropic ratio.
 12. The method of claim 10, wherein the solubilizer is an alcohol and is selected from lower alcohols and halogenated alcohols.
 13. The method of claim 12, wherein the solubilizer is selected from methanol, ethanol, propanol, isopropanol, butanol, trifluoroethanol, pentafluoropropanol and heptafluorobutanol.
 14. The method of claim 10, wherein the solubilizer is a cyclic ether selected from tetrahydrofuran, 2-methyl-tetrahydrofuran, tetrahydropyran, and dioxane.
 15. The method of claim 10, wherein the solubilizer is first added to the solvent, followed by the addition of the perfluorinated polyether.
 16. The method of claim 10, wherein the perfluorinated polyether is first added to the solvent, followed by the addition of the solubilizer.
 17. The method of claim 10, wherein the solubilizer and the perfluorinated polyether are added simultaneously to the solvent.
 18. A lubricating composition comprising a perfluorinated polyether, a fluorinated solvent and a solubilizer selected from alcohols and cyclic ethers.
 19. The composition of claim 18, wherein the weight ratio of solubilizer to fluorinated solvent is within the range of about 2:98 to 10:80.
 20. The composition of claim 19, wherein the weight ratio of solubilizer to fluorinated solvent is the azeotropic ratio.
 21. The composition of claim 18, which comprises using about 0.001-10 parts by weight of perfluorinated polyether to about 90-99.999 parts by weight of the solvent and solubilizer combined.
 22. The composition of claim 21, which comprises using about 0.001-0.1 parts by weight of perfluorinated polyether to about 99.9-99.999 parts by weight of the solvent and

- solubilizer combined.
23. The composition of claim 18, wherein the solubilizer is an alcohol.
 24. The composition of claim 23, wherein the alcohol is selected from lower alcohols and halogenated alcohols.
 25. The composition of claim 24, wherein the alcohol is a lower alcohol.
 26. The composition of claim 25, wherein the lower alcohol is selected from methanol, ethanol, propanol, isopropanol, and butanol.
 27. The composition of claim 24, wherein the alcohol is a halogenated alcohol.
 28. The composition of claim 27, wherein the halogenated alcohol is selected from trifluoroethanol, pentafluoropropanol and heptafluorobutanol.
 29. The composition of claim 18, wherein the solubilizer is a cyclic ether.
 30. The composition of claim 29, wherein the cyclic ether is saturated.
 31. The composition of claim 30, wherein the saturated cyclic ether is selected from tetrahydrofuran, 2-methyl-tetrahydrofuran, tetrahydropyran, and dioxane.
 32. The composition of claim 29, wherein the cyclic ether is unsaturated.
 33. The composition of claim 18, wherein the fluorinated solvent is selected from hydrochlorofluorocarbons, hydrofluoroethers, hydrofluorocarbons, hydrohalofluoroethers, and fluorinated amines and cyclic ethers.
 34. A method of manufacturing a corrosion-protected magnetic storage device, comprising:
 - (a) forming a magnetic layer on a substrate;
 - (b) forming a protective overcoat layer over the magnetic layer; and
 - (c) forming a lubricant topcoat on the surface of the protective overcoat layer by directly applying to said surface the lubricating composition of claim 18.